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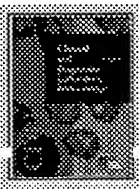

Clinical and Diagnostic Laboratory Immunology HOME

MN Kiarie, FR Rurangirwa, LE Perryman, DP Jasmer, and TC McGuire
Monoclonal antibodies to surface-exposes proteins of Mycoplasma mycoides subsp. mycoides (small-colony strain), which causes contagious bovine pleuropneumonia
Clin. Diagn. Lab. Immunol., Nov 1996; 3: 746 - 752. [Abstract] [PDF]

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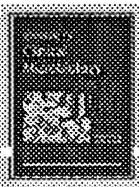

Journal of Clinical Microbiology HOME

G Bolske, JG Mattsson, CR Bascunana, K Bergstrom, H Wesonga, and KE Johansson
Diagnosis of contagious caprine pleuropneumonia by detection and identification of Mycoplasma capricolum subsp. capripneumoniae by PCR and restriction enzyme analysis
J. Clin. Microbiol., Apr 1996; 34: 785 - 791. [Abstract] [PDF]

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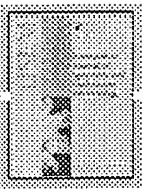
International Journal of Systematic and Evolutionary Microbiology HOME

F Bonnet, C Saillard, JM Bove, RH Leach, DL Rose, GS Cottew, and JG Tully
DNA relatedness between field isolates of Mycoplasma F38 group, the agent of contagious caprine pleuropneumonia, and strains of Mycoplasma capricolum
Int. J. Syst. Bacteriol., Jul 1993; 43: 597 - 602. [Abstract]

ANNALS of the New York Academy of Sciences HOME

El. Nasri M
Mycoplasma from contagious caprine pleuropneumonia
Ann. N.Y. Acad. Sci., Jul 1967; 143: 298 - 304.



International Journal of Systematic and Evolutionary Microbiology HOME

TK Taylor, JB Bashiruddin, and AR Gould
Relationships between members of the Mycoplasma mycoides cluster as shown by DNA probes and sequence analysis
Int. J. Syst. Bacteriol., Oct 1992; 42: 593 - 601. [Abstract]

ANNALS of the New York Academy of Sciences HOME

PART I. MOLECULAR EPIDEMIOLOGY:
F. THIAUCOURT, S. LORENZON, A. DAVID, J. J. TULASNE, and J. DOMENECH
Vaccination against Contagious Bovine Pleuropneumonia and the Use of Molecular Tools in Epidemiology
Ann. N.Y. Acad. Sci., Jun 1998; 849: 146 - 151.
[Abstract] [Full text] [PDF]

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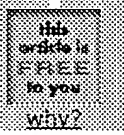
PART III. GENERAL SESSION:
R. S. WINDSOR and A. WOOD
Contagious Bovine Pleuropneumonia: The Costs of Control in Central/Southern Africa
Ann. N.Y. Acad. Sci., Jun 1998; 849: 299 - 306.
[Abstract] [Full text] [PDF]



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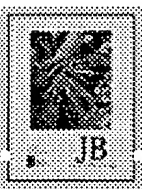
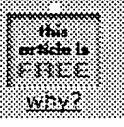


Journal of Bacteriology HOME

POPULATION GENETICS AND EVOLUTION:
Bertil Pettersson, Göran Bölske, François Thiaucourt, Mathias Uhlén, and Karl-Erik Johansson
Molecular Evolution of *Mycoplasma capricolum* subsp. *capripneumoniae* Strains, Based on Polymorphisms in the 16S rRNA Genes
J. Bacteriol., May 1998; 180: 2350 - 2358.
[Abstract] [Full text] [PDF] [Citation Map]



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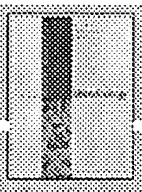


Microbiology HOME

X Cheng, J Nicolet, R Miserez, P Kuhnert, M Krampe, T Pilloud, EM Abdo, C Griot, and J Frey
Characterization of the gene for an immunodominant 72 kDa lipoprotein of Mycoplasma mycoides subsp. mycoides small colony type
Microbiology, Dec 1996; 142: 3515 - 3524. [Abstract] [Citation Map]

Microbiology HOME

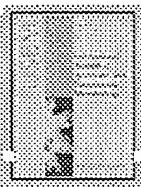
X Cheng, J Nicolet, F Poumarat, J Regalla, F Thiaucourt, and J Frey
Insertion element IS1296 in Mycoplasma mycoides subsp. mycoides small colony identifies a European clonal line distinct from African and Australian strains
Microbiology, Dec 1995; 141: 3221 - 3228. [Abstract] [Citation Map]

Infection and Immunity HOME

FR Rurangirwa, A Wambugu, SM Kihara, and TC McGuire
A Mycoplasma strain F38 growth-inhibiting monoclonal antibody (WM-25) identifies an epitope on a surface-exposed polysaccharide antigen
Infect. Immun., Apr 1995; 63: 1415 - 1420. [Abstract] [PDF]

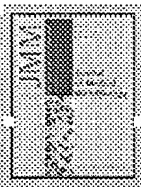
Journal of Bacteriology HOME

CR Bascunana, JG Mattsson, G Bolske, and KE Johansson
Characterization of the 16S rRNA genes from Mycoplasma sp. strain F38 and development of an identification system based on PCR
J. Bacteriol., May 1994; 176: 2577 - 2586. [Abstract]



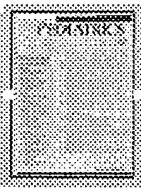
International Journal of Systematic and Evolutionary Microbiology HOME

RH Leach, H Erno, and KJ MacOwan
Proposal for designation of F38-type caprine mycoplasmas as Mycoplasma capricolum subsp. capripneumoniae subsp. nov. and consequent obligatory relegation of strains currently classified as M. capricolum (Tully, Barile, Edward, Theodore, and Erno 1974) to an additional new subspecies, M. capricolum subsp. capricolum subsp. nov
Int. J. Syst. Bacteriol., Jul 1993; 43: 603 - 605. [Abstract]



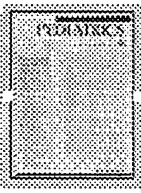
Journal of Medical Microbiology HOME

JOURNAL ARTICLES:
S. H. Buttery, L. C. Lloyd, and D. A. Titchen
Acute respiratory, circulatory and pathological changes in the calf after intravenous injections of the galactan from Mycoplasma mycoides subsp. mycoides
J. Med. Microbiol., Nov 1976; 9: 379 - 391. [Abstract]



PEDIATRICS HOME

REVIEW_ARTICLES:
WA, Clyde, Jr. and FW Denny
Mycoplasma infections in childhood
Pediatrics, Oct 1967; 40: 669 - 684. [Abstract]



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SJ Sussman, RL Magoffin, EH Lennette, and J Schieble
Cold agglutinins, eaton agent, and respiratory infections of children
Pediatrics, Oct 1966; 38: 571 - 577. [Abstract]

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☐ John B. March, Jason Clark, and Malcolm Brodlie
Characterization of Strains of *Mycoplasma mycoides* subsp. *mycoides* Small Colony Type Isolated from Recent Outbreaks of Contagious Bovine Pleuropneumonia in Botswana and Tanzania: Evidence for a New Biotype
J. Clin. Microbiol. 2000 38: 1419-1425. [Abstract] [Full Text] [PDF]

☐ T. Liu, M. García, S. Levisohn, D. Yogev, and S. H. Kleven
Molecular Variability of the Adhesin-Encoding Gene *pvpA* among *Mycoplasma gallisepticum* Strains and Its Application in Diagnosis
J. Clin. Microbiol. 2001 39: 1882-1888. [Abstract] [Full Text] [PDF]

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☐ WC Lai, SP Pakes, K Ren, YS Lu, and M Bennett
Therapeutic effect of DNA immunization of genetically susceptible mice infected with virulent Mycoplasma pulmonis
J Immunol 1997 158: 2513-2516. [Abstract] [PDF]

J Warren, M Kende, and K Takano
The adjuvant effect of powdered ferric oxide: enhancement of response to Mycoplasma pneumoniae and respiratory syncytial virus vaccines
J Immunol 1969 102: 1300-1308.

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Title/Abstract: mycoplasma and vaccine **In Journals:** J. Immunol.

Infect. Immun., Mar 1994, 1008-1014, Vol 62, No. 3

Immunoblot analyses of chimpanzee sera after infection and after immunization and challenge with Mycoplasma pneumoniae

G Franzoso, PC Hu, GA Meloni and MF Barile

Laboratory of Mycoplasma, Food and Drug Administration, Bethesda, Maryland 20892.

Consecutive weekly or biweekly serum specimens obtained during a 3- or 4-month study from 16 chimpanzees were examined by immunoblot analyses to identify the immunogenic components of **Mycoplasma** pneumoniae. Six experimentally infected chimpanzees showed significant signs of overt disease, including cough, pharyngitis, rhinitis, fever, and loss of appetite. The sera of these infected chimpanzees recognized from 17 to 20 protein bands. Two control chimpanzees that were not inoculated were included in the study. Three chimpanzees immunized with a formalin-inactivated OSU-1A **vaccine** and three chimpanzees immunized with an experimental acellular **vaccine** showed minimal signs of disease on challenge. After challenge, the serum immunoblot responses of the immunized chimpanzees were similar to those of the infected chimpanzees. Before challenge, the sera of two previously infected chimpanzees recognized protein bands of 169 (which comigrated with the P1 adhesin), 148, 130, 117, 86, 61, 44, 35, 30, and 29 kDa. After challenge, the previously infected chimpanzees showed the most intense serum immunoblot responses and were most protected against colonization and disease. The sera from each of the 16 chimpanzees examined recognized a large number of immunogenic components, and the serum immunoblot responses were virtually identical to those of patients. Sera from each chimpanzee and patient recognized 169-, 148-, 130-, 117- , 86-, 44-, and 35-kDa bands and many of them recognized 67-, 63-, 61-, 56-, 32-, 30-, and 29-kDa protein bands.

This article has been cited by other articles:

- SVENSTRUP, H. F., NIELSEN, P. K., DRASBEK, M., BIRKELUND, S., CHRISTIANSEN, G. (2002). Adhesion and inhibition assay of **Mycoplasma** genitalium and M. pneumoniae by immunofluorescence microscopy. *J Med Microbiol* 51: 361-373 [Abstract] [Full Text]
- Razin, S., Yogev, D., Naot, Y. (1998). Molecular Biology and Pathogenicity of **Mycoplasmas**. *Microbiol Mol Biol Rev* 62: 1094-1156 [Abstract] [Full Text]

STN Search History

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(FILE 'HOME' ENTERED AT 08:02:39 ON 21 MAR 2003)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 08:03:14 ON 21 MAR 2003

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110	FILE DGENE
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65	FILE LIFESCI
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21	FILE NTIS
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8	FILE PHIN
108	FILE PROMT
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6809	FILE USPATFULL
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2	FILE VETU
162	FILE WPIDS
162	FILE WPINDEX
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10	FILE CBNB

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            44   FILE INVESTEXT
             4   FILE IPA
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     08:12:37 ON 21 MAR 2003
L2          1223 S L1
L3         44821 S L2 AND TREHALOSE OR VACUUM (S) DR#####
L4           375 S L2 AND (TREHALOSE OR VACUUM (S) DR#####)
L5            69 S L4 AND (VIRUS OR VACCINE)
L6             5 S L4 AND CHITOSAN
L7             0 S L6 AND L5
L8            53 DUP REM L5 (16 DUPLICATES REMOVED)
L9            50 S L4 AND (GLASS# (S) (PRESERV###### OR MATRIX))
L10           29 DUP REM L9 (21 DUPLICATES REMOVED)
L11           12 S L10 AND L8
L12           41 S L8 NOT L11
L13           66 S VACCINE AND (CONTAGIOUS (S) BOVINE (S) PLEUROPNEUMONIA (S) MY
L14           34 DUP REM L13 (32 DUPLICATES REMOVED)
L15            0 S L14 AND (TREHALOSE OR CHITOSAN)
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L1 QUE PRESERV##### (S) (VIRUS OR BACTER### OR BIOLOGIC## OR BIOLOGICALLY-ACT IVE OR VACCINE) AND (MATRIX OR TREHALOSE OR (VACUUM OR PRESSURE OR ATM OSPHER##) (S) DR####)

L2 1223 L1

L3 44821 L2 AND TREHALOSE OR VACUUM (S) DR#####

L4 375 L2 AND (TREHALOSE OR VACUUM (S) DR#####)

L5 69 L4 AND (VIRUS OR VACCINE)

L6 5 L4 AND CHITOSAN

L7 0 L6 AND L5

L8 53 DUP REM L5 (16 DUPLICATES REMOVED)

L9 50 L4 AND (GLASS# (S) (PRESERV###### OR MATRIX))

L10 29 DUP REM L9 (21 DUPLICATES REMOVED)

L11 12 L10 AND L8

L12 41 L8 NOT L11

L13 66 VACCINE AND (CONTAGIOUS (S) BOVINE (S) PLEUROPNEUMONIA (S) MYCOP LASMA)

L14 34 DUP REM L13 (32 DUPLICATES REMOVED)

L15 0 L14 AND (TREHALOSE OR CHITOSAN)

d l11 1-12 ti, au, so

L11 ANSWER 1 OF 12 MEDLINE
TI Xerovac: an ultra rapid method for the dehydration and **preservation** of live attenuated Rinderpest and Peste des Petits ruminants **vaccines**.
AU Worrall E E; Litamoi J K; Seck B M; Ayelet G
SO VACCINE, (2000 Nov 22) 19 (7-8) 834-9.
Journal code: 8406899. ISSN: 0264-410X.

L11 ANSWER 2 OF 12 MEDLINE
TI [A device for safe handling of **vacuum-dried** microbes (author's transl)].
Eine Einrichtung zum gefahrlosen Umgang mit vacuumgetrockneten Mikroben.
AU Eyer H; Schmidt M
SO ZENTRALBLATT FUR BAKTERIOLOGIE, PARASITENKUNDE, INFEKTIONSKRANKHEITEN UND HYGIENE. ERSTE ABTEILUNG ORIGINALE. REIHE A: MEDIZINISCHE MIKROBIOLOGIE UND PARASITOLOGIE, (1975) 230 (4) 534-7.
Journal code: 0331570. ISSN: 0300-9688.

L11 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2003 ACS
TI Scalable long-term shelf **preservation** of sensitive **biological** solutions and suspensions
IN Bronshtein, Victor
SO U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 785,472, abandoned.
CODEN: USXXAM

L11 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS
TI Preservation and formulation of bioactive materials for storage and delivery in hydrophobic carriers
IN Bronshtein, Victor
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2

L11 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS
TI Method for the **preservation** of **viruses** and mycoplasma
IN Worrall, Eric Edward
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2

L11 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2003 ACS
TI Method and composition for **preserving viruses**
IN Kovesdi, Imre; Ransom, Stephen C.
SO PCT Int. Appl., 19 pp.
CODEN: PIXXD2

L11 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS
TI **Preservation** of sensitive **biological** samples by vitrification
IN Bronshtein, Victor
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2

L11 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS
TI Protection of proteins and the like
IN Roser, Bruce Joseph
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2

L11 ANSWER 9 OF 12 PROMT COPYRIGHT 2003 Gale Group

TI A spoonful of sugar.
AU Haydon, Colette
SO Soap Perfumery & Cosmetics, (June 2000) Vol. 73, No. 6, pp. 39.
ISSN: 0037-749X.

L11 ANSWER 10 OF 12 PROMT COPYRIGHT 2003 Gale Group

TI Universal Preservation Technologies Awarded Office of Naval Research Contract for the Preservation of Certain Mammalian Cells.
SO Business Wire, (10 Apr 2000) pp. 1339.

L11 ANSWER 11 OF 12 PROMT COPYRIGHT 2003 Gale Group

TI Trhalose Boosts Prospects for Improved Biopharmaceuticals and **Vaccines**
New applications for QT-4 formulation are found in drug & **vaccine** delivery & in food **preservation**
SO Genetic Engineering News, (15 Mar 1995) pp. 10.
ISSN: 1270-6377.

L11 ANSWER 12 OF 12 PROMT COPYRIGHT 2003 Gale Group

TI A NEW TECHNIQUE OFFERING ROOM TEMPERATURE STABLE BIOLOGICS
SO Pharmaceutical Manufacturing Review, (Dec 1994) pp. 34.
ISSN: 0955-3894.

L11 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 2003:53501 CAPLUS
DN 138:69508
TI Scalable long-term shelf **preservation** of sensitive **biological** solutions and suspensions
IN Bronshtein, Victor
PA Universal Preservation Technologies, Inc., USA
SO U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 785,472, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6509146	B1	20030121	US 1997-979458	19971126
	US 5766520	A	19980616	US 1997-785473	19970117
	ZA 9810789	A	19990722	ZA 1998-10789	19981125
	US 2003022333	A1	20030130	US 2002-174007	20020618
PRAI	US 1996-18573P	P	19960529		
	US 1996-21796P	P	19960715		
	US 1997-785472	B2	19970117		
	US 1997-785473	A2	19970117		
	WO 1997-US8974	W	19970528		
	US 1997-979458	A	19971126		
	US 2000-734970	B1	20001212		

AB This invention discloses methods for the long-term **preservation** of industrial scale **biol**. solns. and suspensions contg. **biol**. **active** mols., cells and small multicellular specimens at ambient temps. by dehydration in amorphous very viscous liq. or **glass** state. The scale up method comprises the primary **drying** step of boiling under **vacuum** to form a mech.-stable foam and a secondary **drying** step to increase the stability. Vitrification can subsequently be achieved by cooling the dried material to the storage temp. which is lower than the glass transition temp.
RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

11 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 2001:396641 CAPLUS
DN 135:10018
TI Preservation and formulation of bioactive materials for storage and delivery in hydrophobic carriers
IN Bronshtein, Victor
PA Universal Preservation Technologies, Inc., USA
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001037804	A2	20010531	WO 2000-US32071	20001122
	WO 2001037804	A3	20011122		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,

RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-166783P P 19991122

AB This invention relates to formulations comprising **biol**. samples **preserved** as dry **glassy** powders and hydrophobic carriers, the formulations being adapted for the long-term storage and delivery of the bioactive materials, in particular viral and **bacterial vaccines**, vectors and cells, at ambient or higher temps., and to methods for prepg. these formulations. Thus, freeze-dried samples of amphotericin B were rehydrated with 40% sucrose/vial. Then. The solns. were transferred sterilized **glass** vials for future **preservation** by drying. B. Before drying, the vials were covered with gray Bu slotted rubber stoppers. The vials were **dried** inside a **vacuum** chamber. Before the vacuum was applied the shelf temp. was decreased to 5.degree.. The hydrostatic pressure inside the chamber was decreased to 0.5 Torr. The suspension was boiled for 30 min. The results of the assay suggested that the loss of potency was only detected in those samples dried at the lower temp. (25.degree.) and subsequently stored at 40.degree..

L11 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 2000:401969 CAPLUS
DN 133:28260
TI Method and composition for **preserving viruses**
IN Kovesdi, Imre; Ransom, Stephen C.
PA Genvec, Inc., USA
SO PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000034444	A2	20000615	WO 1999-US29271	19991210
	WO 2000034444	A3	20001026		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6225289	B1	20010501	US 1998-208666	19981210
	EP 1137758	A2	20011004	EP 1999-966096	19991210
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002531119	T2	20020924	JP 2000-586878	19991210
	US 2002019041	A1	20020214	US 2001-870920	20010531
	US 6514943	B2	20030204		
PRAI	US 1998-208666	A	19981210		
	WO 1999-US29271	W	19991210		

AB The present invention provides a method and a compn. for **preserving** a **virus**. The **virus** is placed in a liq. carrier with a stabilizing agent selected from the group consisting of polysorbate 80, L-arginine, polyvinylpyrrolidone, **trehalose**, and combinations thereof. The liq. compn. can be maintained at a temp.

above 0 .degree.C for a significant period of time while maintaining a satisfactory degree of viral activity.

L11 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 1999:359630 CAPLUS
DN 131:2531
TI **Preservation** of sensitive **biological** samples by vitrification
IN Bronshtein, Victor
PA Universal Preservation Technologies, Inc., USA
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9927071	A1	19990603	WO 1997-US21703	19971126
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2312233	AA	19990603	CA 1997-2312233	19971126
AU 9854596	A1	19990615	AU 1998-54596	19971126
EP 1032647	A1	20000906	EP 1997-948550	19971126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI WO 1997-US21703	A	19971126		

AB This invention discloses methods for the long-term **preservation** of industrial scale **biol**. solns. and suspensions contg. **biol**. **active** mols., cells and small multicellular specimens at ambient temps. by dehydration in amorphous very viscous liq. or **glass** state. The scale up method comprises the primary **drying** step of boiling under **vacuum** to form a mech.-stable foam and a secondary **drying** step to increase the stability. Vitrification can subsequently be achieved by cooling the dried material to the storage temp. which is lower than the glass transition temp.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 1987:420354 CAPLUS
DN 107:20354
TI Protection of proteins and the like
IN Roser, Bruce Joseph
PA Quadrant Bioresources Ltd., UK
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 8700196	A1	19870115	WO 1986-GB396	19860709
W: AU, DK, GB, JP, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				

	AU 8661363	A1	19870130	AU 1986-61363	19860709
	AU 591160	B2	19891130		
	EP 229810	A1	19870729	EP 1986-904281	19860709
	EP 229810	B1	19911016		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 63500562	T2	19880303	JP 1986-503940	19860709
	JP 07079694	B4	19950830		
	AT 68524	E	19911115	AT 1986-904281	19860709
	GB 2187191	A1	19870903	GB 1987-4890	19870303
	GB 2187191	B2	19891101		
	DK 8701207	A	19870309	DK 1987-1207	19870309
	DK 170173	B1	19950606		
	CA 1307485	A1	19920915	CA 1987-531500	19870309
	US 4891319	A	19900102	US 1987-26695	19870507
	JP 11246593	A2	19990914	JP 1998-253492	19980908
PRAI	GB 1985-17352		19850709		
	GB 1986-13066		19860529		
	EP 1986-904281		19860709		
	JP 1986-503940		19860709		
	WO 1986-GB396		19860709		

AB Sensitive proteins and other macromols., such as enzymes, antibodies, antigens, serum complement, fluorescent proteins, **vaccine** components, polysaccharides such as agarose, etc., can be **preserved** by **drying** at ambient temp. and **atm**. **pressure** in the presence of **trehalose**. A porous **matrix** impregnated with **trehalose** is provided as a receiver for a blood or other liq. sample to be dried, e.g. prior to anal. Alk. phosphatase from calf intestine in phosphate-buffered saline was incubated in the wells of an immunoplate overnight. The wells were washed and dried at 37.degree. in the presence or absence of 5% **trehalose** in distd. water. The enzyme retained full activity on drying in the presence of **trehalose**, but lost >90% of its activity when dried in the absence of **trehalose**.

=> d l12 1-41 ti,au, so

L12 ANSWER 1 OF 41 MEDLINE
TI Physical, chemical and immunological stability of CHO-derived hepatitis B surface antigen (HBsAg) particles.
AU Diminsky D; Moav N; Gorecki M; Barenholz Y
SO VACCINE, (1999 Aug 20) 18 (1-2) 3-17.
Journal code: 8406899. ISSN: 0264-410X.

L12 ANSWER 2 OF 41 MEDLINE
TI Enhanced immunogenicity of microencapsulated tetanus toxoid with stabilizing agents.
AU Audran R; Men Y; Johansen P; Gander B; Corradin G
SO PHARMACEUTICAL RESEARCH, (1998 Jul) 15 (7) 1111-6.
Journal code: 8406521. ISSN: 0724-8741.

L12 ANSWER 3 OF 41 MEDLINE
TI **Preservation** of viable **biological** samples for experiments in space laboratories.
AU Anthony P; Ausseil J; Bechler B; Benguria A; Blackhall N; Briarty L G; Cogoli A; Davey M R; Garesse R; Hager R; Loddenkemper R; Marchant R; Marco R; Marthy H J; Perry M; Power J B; Schiller P; Ugalde C; Volkmann D; Wardrop J
SO JOURNAL OF BIOTECHNOLOGY, (1996 Jun 27) 47 (2-3) 377-93.
Journal code: 8411927. ISSN: 0168-1656.

L12 ANSWER 4 OF 41 MEDLINE
TI Cryopreservation of varicella-zoster virions without loss of structural integrity or infectivity.
AU Grose C; Friedrichs W E; Smith K O
SO INTERVIROLOGY, (1981) 15 (3) 154-60.
Journal code: 0364265. ISSN: 0300-5526.

L12 ANSWER 5 OF 41 MEDLINE
TI [Stability of the immunogenic properties of plague **vaccine** strain EV, Research Institute of Epidemiology and Hygiene line, during long-term storage].
Stabil'nost' immunogennykh svoistv chumnogo vaktsinnogo shtamma EV linii NIIEG v usloviiakh dlitel'nogo khraneniia.
AU Chicherin Iu V; Lebedinskii V A; Evstigneev V I
SO ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII, (1979 Apr) (4) 39-42.
Journal code: 0415217. ISSN: 0372-9311.

L12 ANSWER 6 OF 41 MEDLINE
TI Stabilities of **dried** suspensions of influenza **virus** sealed in a **vacuum** or under different gases.
AU Greiff D; Rightsel W A
SO APPLIED MICROBIOLOGY, (1969 Jun) 17 (6) 830-5.
Journal code: 7605802. ISSN: 0003-6919.

L12 ANSWER 7 OF 41 MEDLINE
TI [Destructive effect of light on measles and influenza **viruses** during the **drying** and further **preservation** in **vacuum**].
Razrushaiushchee deistvie sveta na virusy kori i grippa v protsesse ikh vysushivaniia i dal neishego khraneniia pod vakuumom.
AU LOZOVSKAIA L S
SO Vopr. virus, (1959 Jan-Feb) 4 (1) 55-8.

L12 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2003 ACS

TI Xerovac: an ultra rapid method for the dehydration and **preservation** of live attenuated Rinderpest and Peste des Petits ruminants **vaccines**. [Erratum to document cited in CA135:231554]
AU Worrall, E. E.; Litamoi, J. K.; Seck, B. M.; Ayelet, G.
SO Vaccine (2001), 19(28-29), 4086
CODEN: VACCDE; ISSN: 0264-410X

L12 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Rotavirus **vaccine** formulations containing a sugar
IN Burke, Carl J.; Volkin, David B.
SO U.S., 25 pp., Cont.-in-part of U.S. 5,932,223.
CODEN: USXXAM

L12 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Formulation of preservation mixtures containing sensitive biologicals to be stabilized for ambient temperature storage by drying
IN Bronshtein, Victor; Linkowski, Lynn
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2

L12 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Method for preserving biosensor chip
IN Sonezaki, Shuji; Osaki, Akemi
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

L12 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Stabilization of biological materials by drying without freezing
IN Mattern, Markus; Winter, Gerhard
SO Ger. Offen., 32 pp.
CODEN: GWXXBX

L12 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Pharmaceutical composition for **preserving** recombinant **virus** vectors for gene therapy
IN Kuma, Hidekazu; Iijima, Osamu; Suzuki, Yousuke
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2

L12 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Production and administration of high titer recombinant retroviruses in human cells or body fluids
IN Jolly, Douglas J.; Barber, Jack R.; Chang, Stephen M. W.; Respess, James G.; Allen, John R.; Bodner, Mordechai; Chong, Kimberly; De La Vega, Dan, Jr.; Depolo, Nicholas J.; et al.
SO PCT Int. Appl., 126 pp.
CODEN: PIXXD2

L12 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Reverse transcriptase preservation composition to improve enzyme stability during storage
IN Odawara, Fumitomo
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2

L12 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Comparison between L-drying and freeze-drying methods for the **preservation** of purified tobacco ringspot **virus**
AU Fukumoto, Fumiyoshi; Tochihara, Hiroshi
SO Nippon Shokubutsu Byori Gakkaiho (1996), 62(1), 45-8
CODEN: NSBGAM; ISSN: 0031-9473

L12 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI **Preservation** of recombinant **viruses** by lyophilization in a stabilizing formulation
IN Herrmann, Steven M.; Prussak, Charles E.
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2

L12 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI **Preservation** of live **bacteria** with glycerol or **trehalose**
IN Clarke, Paul Douglas; Forrest, Bruce Darren
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2

L12 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI The **preservation** of tomato spotted wilt **virus** by **vacuum drying**
AU Finlay, K. W.; Parker, C. A.
SO J. Australian Inst. Agr. Sci. (1954), 20, 112-14

L12 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Natural science agents as aids in microbiology
AU Resseler, Raf.
SO Natuurwetensch. Tijdschr. (1943), 25, 153-61
From: Chem. Zentr. II, 1966(1943).

L12 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Pappataci fever. XII. Further observations on stability of the pappataci **virus** against different chemical and physical agents
AU Demina, N. A.
SO Med. Parasitol. Parasitic Diseases (U. S. S. R.) (1941), 10, 283-7

L12 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Pappataci fever. XI. Further investigations on the pappataci **virus** in culture
AU Demina, N. A.
SO Med. Parasitol. Parasitic Diseases (U. S. S. R.) (1941), 10, 271-83

L12 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Pappataci fever. X. Attempts to cultivate the **virus** on the chorio-allantois of chick embryo
AU Demina, N. A.; Levitanskaya, P. B.
SO Med. Parasitol. Parasitic Diseases (U. S. S. R.) (1940), 9, 272-84(French summary, 284)

L12 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Apparatus for concentrating and **preserving** food products and **biological** cultures, sera, etc.
IN Flosdorf, Earl W.

L12 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Apparatus for the **preservation** of sera, **bacterial** cultures, **viruses**, etc.
IN Flosdorf, Earl W.

L12 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2003 ACS
TI Preparation and conservation of serums and **vaccines** by desiccation in an absolute vacuum
AU Bordas, F.
SO Compt. rend. (1919), 169, 670-2

L12 ANSWER 27 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Method and composition for **preserving viruses**.
AU Kovesdi, Imre; Ransom, Stephen C. (1)
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb. 4 2003) Vol. 1267, No. 1, pp. No Pagination. http://www.uspto.gov/web/menu/patdata.html. e-file. ISSN: 0098-1133.

L12 ANSWER 28 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI STUDY OF A DIRECTLY **VACUUM DRIED** TYPHOID **VACCINE**.
AU DIMACHE G; CROITORU M; CIORDAS C; VLADESCU A; DORIN R
SO REV IG BACTERIOL VIRUSOL PARAZITOL EPIDEMIOL PNEUMOFTIZIOL SER BACTERIOL VIRUSOL PARAZITOL EPIDEMIOL, (1986) 31 (2), 145-150. CODEN: BVPEDC. ISSN: 0376-4494.

L12 ANSWER 29 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI A SIMPLE DEVICE FOR FREEZE DRYING ELECTRON MICROSCOPE SPECIMENS.
AU ROBERTS I M; DUNCAN G H
SO J MICROSC (OXF), (1981 (RECD 1982)) 124 (3), 295-304. CODEN: JMICAR. ISSN: 0022-2720.

L12 ANSWER 30 OF 41 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI The use of protein structure/activity relationships in the rational design of stable particulate delivery systems.
AU Costa M.H.B.; Quintilio W.; Sant'Anna O.A.; Faljoni-Alario A.; de Araujo P.S.
SO Brazilian Journal of Medical and Biological Research, (2002) 35/6 (727-730).
Refs: 14
ISSN: 0100-879X CODEN: RBPMB2

L12 ANSWER 31 OF 41 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI Differential handling of bacterial antigens in macrophages infected with Mycobacterium leprae as studied by immunogold labeling of ultrathin sections.
AU Rastogi N.; Cadou S.; Hellio R.
SO International Journal of Leprosy, (1991) 59/2 (278-291).
ISSN: 0148-916X CODEN: IJLEAG

L12 ANSWER 32 OF 41 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI [**Virus** lyophilization].
GEFRIERTROCKNUNG VON VIREN.
AU Liebermann H.
SO Monatshefte fur Veterinarmedizin, (1973) 28/24 (949-954).
CODEN: MVMZA8

L12 ANSWER 33 OF 41 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI A method for **preservation** of **bacteria** and bacteriophages by drying in vacuo.
AU Iijima T.; Sakane T.
SO Cryobiology, (1973) 10/5 (379-385).
CODEN: CRYBAS

L12 ANSWER 34 OF 41 SCISEARCH COPYRIGHT 2003 ISI (R)
TI Cryo-negative staining
AU Adrian M; Dubochet J (Reprint); Fuller S D; Harris J R
SO MICRON, (APR-JUN 1998) Vol. 29, No. 2-3, pp. 145-160.
Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND.

ISSN: 0968-4328.

L12 ANSWER 35 OF 41 PROMT COPYRIGHT 2003 Gale Group

TI Chemical tradenames. (Q-Z).(list of chemical companies throughout the world with contact data)(Industry Overview)(Cover Story)
SO Chemical Week, (27 Sep 2002) Vol. 164, No. 38, pp. 497(9).
ISSN: ISSN: 0009-272X.

L12 ANSWER 36 OF 41 PROMT COPYRIGHT 2003 Gale Group

TI Is sugar the secret of more stable drugs?
SO Manufacturing Chemist, (Nov 1995) pp. 33.
ISSN: 0262-4230.

L12 ANSWER 37 OF 41 PROMT COPYRIGHT 2003 Gale Group

TI DESERT OFFERS NEW SKINCARE INGREDIENT
SO Cosmetics & Toiletries Manufacturers & Suppliers, (Dec 1994) pp. 41.
ISSN: 0952-519X.

L12 ANSWER 38 OF 41 PROMT COPYRIGHT 2003 Gale Group

TI U.S.-U.K. venture aims at commercializing **trehalose**
SO Emerging Food R&D Report, (Aug 1994) pp. N/A.
ISSN: 1050-2688.

L12 ANSWER 39 OF 41 PROMT COPYRIGHT 2003 Gale Group

TI Calgene, English firm unite on preservative
Calgene: Forms food preservative company w/Quadrant Hldg called Osmotica Foods
SO Business Journal (Sacramento, CA), (1 Feb 1993) pp. 11.
ISSN: 8756-5897.

L12 ANSWER 40 OF 41 PROMT COPYRIGHT 2003 Gale Group

TI Le **trehalose** pour conserver aliments et medicaments
UK: U of Cambridge researcher claims **trehalose** (D-glucopyranosyl D-glucopyranoside) can be used to preserve food or drugs
SO Informations Chimie, (Jun 1992) pp. 82.
ISSN: 0020-045X.

L12 ANSWER 41 OF 41 PROMT COPYRIGHT 2003 Gale Group

TI 'Miracle' sugar prolongs shelf life
Quadrant Bioresources: Develops food-preservation process involving **trehalose** sugar
SO High Technology Business, (Oct 1989) pp. 6.
ISSN: 0895-8432.

L12 ANSWER 3 OF 41 MEDLINE
AN 97141232 MEDLINE
DN 97141232 PubMed ID: 8987576
TI **Preservation** of viable **biological** samples for experiments in space laboratories.
AU Anthony P; Ausseil J; Bechler B; Benguria A; Blackhall N; Briarty L G; Cogoli A; Davey M R; Garesse R; Hager R; Loddenkemper R; Marchant R; Marco R; Marthy H J; Perry M; Power J B; Schiller P; Ugalde C; Volkmann D; Wardrop J
CS Life Science Department, University of Nottingham, UK.
SO JOURNAL OF BIOTECHNOLOGY, (1996 Jun 27) 47 (2-3) 377-93.
Journal code: 8411927. ISSN: 0168-1656.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Biotechnology; Space Life Sciences
EM 199702
ED Entered STN: 19970305
Last Updated on STN: 19970305
Entered Medline: 19970219
AB Standard viable **preservation** methods for **biological** samples using low temperatures have been investigated concerning their storage capabilities under higher temperature levels than usual. For a representative set of organism classes (plants, mammalian cells, arthropods and aquatic invertebrates), the minimum appropriate storage conditions have been identified by screening storage temperatures at -196 degrees, -80 degrees, -20 degrees, +4 degrees, +20 degrees/25 degrees C for periods from 2 days to 4 weeks. For storage below 0 degree C, as a typical cryopreservative, dimethylsulfoxide (DMSO) was used. For some samples, the addition of **trehalose** (as cryopreservative) and the use of a nitrogen atmosphere were investigated. After storage, the material was tested for vitality. The findings demonstrated that acceptable **preservation** can be achieved under higher storage temperatures than are typically applied. Small, dense cultured plant cells survive for 21 d when moderately cooled (+4 degrees to -20 degrees C); addition of **trehalose** enhances viability at -20 degrees C. For mammalian cells, the results show that human lymphocytes can be **preserved** for 3 d at 25 degrees C, 7 d at 4 degrees C and 28 d at -80 degrees C. Friend leukaemia **virus** transformed cells can be stored for 3 d at 25 degrees C, 14 d at 4 degrees C and 28 d at -80 degrees C. Hybridoma cells can be kept 7 d at 4 degrees C and 28 d at -20 degrees C or -80 degrees C. Model arthropod systems are well **preserved** for 2 weeks if maintained at lower temperatures that vary depending on the species and/or stage of development; e.g., 12 degrees C for Drosophila imagoes and 4-6 degrees C for Artemia nauplii. For aquatic invertebrates such as sea urchins, embryonic and larval stages can be **preserved** for several weeks at +6 degrees C, whereas sperm and eggs can best be stored at + 4 degrees C for up to 5 d at maximum. These results enhance the range of feasible space experiments with **biological** systems. Moreover, for typical terrestrial **preservation** methods, considerable modification potential is identified.

L12 ANSWER 4 OF 41 MEDLINE
AN 82030023 MEDLINE
DN 82030023 PubMed ID: 6270035
TI Cryopreservation of varicella-zoster virions without loss of structural integrity or infectivity.
AU Grose C; Friedrichs W E; Smith K O
NC AI 14604 (NIAID)
SO INTERVIROLOGY, (1981) 15 (3) 154-60.

Journal code: 0364265. ISSN: 0300-5526.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198112
ED Entered STN: 19900316
Last Updated on STN: 19970203
Entered Medline: 19811215
AB Varicella-zosterer virions present in infected cells or in a cell-free state were freeze-**dried** without loss of structural integrity of infectivity. Generally, yields of greater than 5 log10 foci/ml (infected cells) or greater than 4 log10 PFU/ml (cell-free **virus**) were recovered from varicella-zoster **virus**-infected human melanoma cells both before and after lyophilization in phosphate-buffered media containing 0.1-1.0 M sucrose. **Virus** frozen in solutions lacking sugar had little or no residual infectivity after **vacuum** sublimation was completed. Visualization by electron microscopy demonstrated large numbers of enveloped virions in the **virus** preparations lyophilized in media containing sucrose; in marked contrast, **virus** subjected to freeze-**drying** in buffered solutions without sugar consisted mainly of naked nucleocapsids. Water analyses by Karl Fischer titration suggested that residual moisture retained by sugar prevented disenvelopment of the varicella-zost virion.

L12 ANSWER 6 OF 41 MEDLINE
AN 69250078 MEDLINE
DN 69250078 PubMed ID: 5797938
TI Stabilities of **dried** suspensions of influenza **virus** sealed in a **vacuum** or under different gases.
AU Greiff D; Rightsel W A
SO APPLIED MICROBIOLOGY, (1969 Jun) 17 (6) 830-5.
Journal code: 7605802. ISSN: 0003-6919.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 196909
ED Entered STN: 19900101
Last Updated on STN: 19900101
Entered Medline: 19690917

L12 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 2002:444388 CAPLUS
DN 137:10950
TI Rotavirus **vaccine** formulations containing a sugar
IN Burke, Carl J.; Volkin, David B.
PA Merck & Co., Inc., USA
SO U.S., 25 pp., Cont.-in-part of U.S. 5,932,223.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6403098	B1	20020611	US 1999-366616	19990803
	ZA 9708586	A	19980615	ZA 1997-8586	19970925
	US 5932223	A	19990803	US 1997-938260	19970926
	WO 2001008495	A1	20010208	WO 2000-US21264	20000803

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,

HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1206189 A1 20020522 EP 2000-955357 20000803
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003505482 T2 20030212 JP 2001-513242 20000803

PRAI US 1996-26754P P 19960926
US 1997-46760P P 19970516
US 1997-938260 A2 19970926
US 1999-366616 A 19990803
WO 2000-US21264 W 20000803

AB The present invention provides liq. and lyophilized formulations of **vaccines** against rotavirus infection and methods of their prepn. The formulations include buffering agents appropriate for oral administration of rotavirus **vaccines**. The formulations also include compds. to stabilize the **vaccine** compns. against loss of potency. For example, 1-yr probe stability data were obtained for several optimized lyophilized and liq. formulations of G1 and P1 rotavirus at various temps. and compared to the stability data of an unoptimized formulation, Williams' E (WE) medium/5% sucrose. Optimized liq. formulations contg. rotavirus reassortants in WE medium contg. sucrose, sodium phosphate, and sodium succinate or sodium citrate showed a substantial improvement in stability. Further improvements in storage stability were obsd. for lyophilized formulations. With the appropriate formulation, the thermostability of rotavirus exceeds that of existing live-**virus** liq. (i.e., OPV) and lyophilized (e.g., measles) **vaccines**. The stabilizing effect of either the succinate/phosphate or the citrate/ phosphate buffers offers the potential of combining stability enhancement with a gastric neutralization. Liq. formulations as well as lyophilized formulations that can be reconstituted using this buffer can allow the formulation to be delivered in a single administration.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 2001:396599 CAPLUS
DN 135:2554
TI Formulation of preservation mixtures containing sensitive biologicals to be stabilized for ambient temperature storage by drying
IN Bronshtein, Victor; Linkowski, Lynn
PA Universal Preservation Technologies, Inc., USA
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001037656	A2	20010531	WO 2000-US32261	20001122
WO 2001037656	A3	20020110		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU,

TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1231837 A2 20020821 EP 2000-980766 20001122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 1999-166928P P 19991122
WO 2000-US32261 W 20001122
AB This invention relates to formulations and methods for **preserving** sensitive biologicals, **viruses**, **bacteria** and eukaryotic cells by drying. More particularly, the invention relates to **preservation** mixts. comprising **viruses** or cells and protectants, including methylated monosaccharides, wherein the mixts. are adapted to stabilize these samples during dehydration and subsequent storage at ambient and higher temps.

L12 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 1997:394163 CAPLUS
DN 127:23753
TI Stabilization of biological materials by drying without freezing
IN Mattern, Markus; Winter, Gerhard
PA Boehringer Mannheim Gmbh, Germany
SO Ger. Offen., 32 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19539574	A1	19970430	DE 1995-19539574	19951025
CA 2235243	AA	19970501	CA 1996-2235243	19961024
WO 9715288	A2	19970501	WO 1996-EP4627	19961024
WO 9715288	A3	19970529		

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM

AU 9672984	A1	19970515	AU 1996-72984	19961024
ZA 9608930	A	19980424	ZA 1996-8930	19961024
EP 857060	A2	19980812	EP 1996-934811	19961024
EP 857060	B1	20020130		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI

CN 1205628	A	19990120	CN 1996-199329	19961024
BR 9611265	A	19990504	BR 1996-11265	19961024
JP 11513700	T2	19991124	JP 1996-516286	19961024
IL 124204	A1	20011031	IL 1996-124204	19961024
AT 212541	E	20020215	AT 1996-934811	19961024
ES 2170274	T3	20020801	ES 1996-934811	19961024
RU 2191003	C2	20021020	RU 1998-109886	19961024
NO 9801868	A	19980625	NO 1998-1868	19980424
US 2001055617	A1	20011227	US 1998-51918	19980427
PRAI DE 1995-19539574	A	19951025		
WO 1996-EP4627	W	19961024		

AB A **biol.**, esp. therapeutic, material is stabilized and **preserved** by prepg. a soln. of (1) the material, (2) a carbohydrate or a zwitterionic compd. with polar residues, and (3) a

zwitterionic compd. with nonpolar residues, and drying the soln. at a temp. above its f.p. The process does not involve use of elevated temps., can be carried out in conventional lyophilization app., is energy efficient, and is more rapid than freeze drying. Thus, a soln. contg. maltose 50, L-phenylalanine 10, L-arginine 10, polysorbate 80 0.1, and recombinant human G-CSF 0.35 mg/mL (pH 7.4) was sterilized by filtration and 1-mL portions were dispensed into 2-mL vials fitted with lyophilization stoppers and **dried** isothermally at 20.degree. and reduced **pressure** for 48 h. The product had a residual water content of 1.16% and a glass transition temp. of 75.degree.. The content of native (monomeric) G-CSF was still 99.83% after 13 wk storage at 50.degree..

L12 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 1996:685381 CAPLUS
DN 125:309076
TI Pharmaceutical composition for **preserving** recombinant **virus** vectors for gene therapy
IN Kuma, Hidekazu; Iijima, Osamu; Suzuki, Yousuke
PA Hisamitsu Pharmaceutical Co., Inc., Japan
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9629096	A1	19960926	WO 1996-JP652	19960315
	W: AU, CA, CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9649544	A1	19961008	AU 1996-49544	19960315
	EP 872249	A1	19981021	EP 1996-906024	19960315
	R: CH, DE, FR, GB, LI, NL				
	JP 3193057	B2	20010730	JP 1996-528274	19960315
	US 5869306	A	19990209	US 1997-913592	19970912
PRAI	JP 1995-59261	A	19950317		
	WO 1996-JP652	W	19960315		

AB A process for producing gene transfer prepns. by freeze-drying a mixt. of a recombinant **virus** vector with at least one additive selected among arginine, glutamic acid (or sodium salt thereof), serine, glucose, inositol, lactose, mannitol, sorbitol, **trehalose** and xylose. The prepn. is to **preserve** the potency of the recombinant **virus** vectors. Prepn. of a compn. contg. recombinant MoMLV vector was shown.

L12 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 1995:640918 CAPLUS
DN 123:29478
TI **Preservation** of recombinant **viruses** by lyophilization in a stabilizing formulation
IN Herrmann, Steven M.; Prussak, Charles E.
PA Viagene, Inc., USA
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9510601	A1	19950420	WO 1994-US11414	19941007
	W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KE, KG, KP,				

KR, KZ, LK, LT, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, UZ, VN
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

	CA 2158935	AA	19950420	CA 1994-2158935	19941007
	AU 9479711	A1	19950504	AU 1994-79711	19941007
	EP 728195	A1	19960828	EP 1994-930662	19941007
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 09504429	T2	19970506	JP 1994-511938	19941007
PRAI	US 1993-135938		19931012		
	US 1993-153342		19931115		
	WO 1994-US11414		19941007		

AB Methods for **preserving** an infectious recombinant **virus** for subsequent reconstitution are provided. These methods are based upon methods of freeze-drying in the presence of stabilizers and cryoprotectants. The preferred method involves mixing the **virus** with an aq. soln. of a saccharide, a high mol. wt. structural additive, a buffering component and water to form an aq. suspension in which the **virus** is stabilized followed by cooling the aq. suspension to a temp. below the glass transition state temp. or below the eutectic point temp. of the formulation; and removing water from the cooled aq. suspension by sublimation to form a lyophilized **virus** having less than 10% water by wt. of the lyophilized **virus**. The **virus** is capable of infecting mammalian cells upon reconstitution. Optimization expts. are reported with conditions leading to storage with stable titers for up to 160 days reported.

L12 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 1993:456134 CAPLUS
DN 119:56134
TI **Preservation** of live **bacteria** with glycerol or **trehalose**
IN Clarke, Paul Douglas; Forrest, Bruce Darren
PA Mastavac Ltd., UK
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9311220	A1	19930610	WO 1992-GB2243	19921203
	W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, PT, RO, RU, SD, SE, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
	AU 9229546	A1	19930628	AU 1992-29546	19921203
PRAI	GB 1991-25695		19911203		
	WO 1992-GB2243		19921203		

AB Live **bacteria** are mixed with **trehalose** (I) or glycerol and dried to **preserve** them. An aq. suspension of Salmonella typhi contg. 2.3x1010 viable organism/mL and 20% I was coated on filter paper and air-dried. The no of viable cells after 7 days were 1x106 while there was no viable cell in the control contg. no I. Gastric resistant capsules contg. freeze- dried powder of S. typhi and I in an amt. to provide a viable count of 1-5x1010 cells were prepd.

L12 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 1954:78344 CAPLUS
DN 48:78344

OREF 48:13823i,13824a
TI The **preservation** of tomato spotted wilt **virus** by **vacuum drying**
AU Finlay, K. W.; Parker, C. A.
CS Univ. Western Australia, Nedlands
SO J. Australian Inst. Agr. Sci. (1954), 20, 112-14
DT Journal
LA Unavailable
AB The **virus** survived **vacuum drying** when the infective plant sap was mixed with fresh egg albumin, but it was found necessary to include P2O5 in the ampuls to increase the longevity of the active **virus**. After storage for 21 months at room temp. the **virus** was still infective.

L12 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 1940:39742 CAPLUS
DN 34:39742
OREF 34:6021c-f
TI Apparatus for the **preservation** of sera, **bacterial** cultures, **viruses**, etc.
IN Flosdorf, Earl W.
PA Trustees of the University of Pennsylvania
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2199815		19400507	US	

AB Various structural and operative details are described, of app. for the treatment and **preservation** of **biologically active** substances by freezing the substance, dehydrating it from the frozen state under a high vacuum, and carrying out the operation in the final individual containers in which the resulting product is to be kept until used. U. S. 2,199,816 also describes numerous details of app. used and of operation for the treatment and **preservation** of **biologically active** substances by freezing the substance, dehydrating it from the frozen state under a high **vacuum**, and sealing the **dried** product under a high **vacuum**, the whole process being a continuous process and conducted under aseptic conditions in the final container, in which the material is to be stored, and distributed. U. S. 2,199,817 relates to the **preservation** of similar materials produced in a desiccated state in the container by freezing the substance, dehydrating it from the frozen state under a high **vacuum**, and sealing the **dried** product under a high **vacuum**, the container being provided with a rubber stopper which has a passage therethrough and an integral rubber tubular extension of said passage, the container being sealed by clamping off this rubber extension after the **biologically active** substance has been desiccated and while a **vacuum** is maintained within the container, by means or a metal clamp. Cf. C. A. 33, 8230.8.

L12 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2003 ACS
AN 1993:456134 CAPLUS
DN 119:56134
TI **Preservation** of live **bacteria** with glycerol or **trehalose**
IN Clarke, Paul Douglas; Forrest, Bruce Darren
PA Mastavac Ltd., UK
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent

LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9311220	A1	19930610	WO 1992-GB2243	19921203
	W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, PT, RO, RU, SD, SE, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
	AU 9229546	A1	19930628	AU 1992-29546	19921203
PRAI	GB 1991-25695		19911203		
	WO 1992-GB2243		19921203		

AB Live **bacteria** are mixed with **trehalose** (I) or glycerol and dried to **preserve** them. An aq. suspension of Salmonella typhi contg. 2.3x1010 viable organism/mL and 20% I was coated on filter paper and air-dried. The no of viable cells after 7 days were 1x106 while there was no viable cell in the control contg. no I. Gastric resistant capsules contg. freeze- dried powder of S. typhi and I in an amt. to provide a viable count of 1-5x1010 cells were prepd.

L12 ANSWER 33 OF 41 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 74162905 EMBASE
DN 1974162905
TI A method for **preservation** of **bacteria** and bacteriophages by drying in vacuo.
AU Iijima T.; Sakane T.
CS Inst. Fermentat., Osaka, Japan
SO Cryobiology, (1973) 10/5 (379-385).
CODEN: CRYBAS
DT Journal
FS 004 Microbiology
047 Virology
LA English
AB An efficient and practical method was established to **preserve** **bacterial** strains and bacteriophages. The method is characterized by **drying** without freezing and by use of a cotton wool plug (nonabsorbent) to prevent contamination. **Drying** conditions were examined by measuring temperature, **vacuum**, and residual moisture of the samples. From measurement, it was found that the cotton wool plug acts as a buffer and a desiccant. Thus, the specimens reached optimal conditions during storage. Another advantage was that the temperature of the specimen during the **drying** procedure was 2-5.degree.C; therefore, the evaporation of the water is rapid and the time of completion is shorter than that during lyophilization.

L12 ANSWER 36 OF 41 PROMT COPYRIGHT 2003 Gale Group

AN 95:459400 PROMT
TI Is sugar the secret of more stable drugs?
SO Manufacturing Chemist, (Nov 1995) pp. 33.
ISSN: 0262-4230.
LA English
WC 1405
FULL TEXT IS AVAILABLE IN THE ALL FORMAT
AB Some scientists have predicted that, if ever a cure for cancer is to be discovered, it will be found deep in the rainforests. The plant world has already provided researchers with cures and treatments for many diseases. It invariably seems that the natural world can develop more bizarre and ingenious processes than the human mind is capable of dreaming up. For example, the secret of eternal life is desired by many but beyond the realms of science fiction B-movies it is an impossibility.

So is it conceivable that organisms exist with the ability to return to life after being dead for a hundred years, and that scientists are tapping into this phenomenon to develop products that could significantly alter healthcare around the world? Such organisms do exist, and they give the impression of being dried up and dead even when exposed to the most sensitive tests. But sprinkle them with water and, as if by magic, life returns.

This is a survival mechanism used by some plants and animals that live in the desert. In times of drought they dry out completely, but once the rains come, they are brought back to life. Known as cryptobionts, they can lose up to 99% of their water, remain dormant for long periods, and still return to full metabolic activity when rehydrated. There is one recorded case of a resurrection plant (Selaginella lepidophylla) which was restored after being kept in a museum for 120 years. Antonie van Leeuwenhoek first described the existence of cryptobionts in 1674, and over 300 years later a Cambridge scientist, Bruce Roser, founded the company Quadrant, to capitalise on this natural process. He wanted to prove that cryptobionts held the key to attaining the pharmaceutical goal of creating formulations stable at room temperature. So what is it about these organisms that means they can rise from the dead? The basis is a naturally-occurring disaccharide, **trehalose**. In order to survive the drought, a number of organisms such as the resurrection plant swap their water molecules for **trehalose** ones.

=> d l14 1-34 ti,au, so

L14 ANSWER 1 OF 34 MEDLINE DUPLICATE 1
TI Re-suspension of T(1)44 **vaccine** cultures of Mycoplasma mycoides subsp mycoides SC in 1 molar MgSO(4) causes a drop in pH and a rapid reduction in titre.
AU March John B; Waite Emma R; Litamoi Joseph K
SO FEMS IMMUNOLOGY AND MEDICAL MICROBIOLOGY, (2002 Oct 11) 34 (2) 97-103. Journal code: 9315554. ISSN: 0928-8244.

L14 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2
TI Molecular epidemiology of contagious bovine pleuropneumonia in Tanzania based on amplified fragment length polymorphism and pulsed-field gel electrophoresis analysis
AU Kusiluka, L. J. M.; Ojeniyi, B.; Friis, N. F.; Kokotovic, B.; Ahrens, P.
SO Journal of Veterinary Medicine, Series B (2001), 48(4), 303-312 CODEN: JVMBE9; ISSN: 0931-1793

L14 ANSWER 3 OF 34 MEDLINE DUPLICATE 3
TI Effect of HEPES buffer systems upon the pH, growth and survival of Mycoplasma mycoides subsp. mycoides small colony (MmmSC) **vaccine** cultures.
AU Waite E R; March J B
SO FEMS MICROBIOLOGY LETTERS, (2001 Jul 24) 201 (2) 291-4. Journal code: 7705721. ISSN: 0378-1097.

L14 ANSWER 4 OF 34 MEDLINE DUPLICATE 4
TI Characterization of strains of **Mycoplasma** mycoides subsp. mycoides small colony type isolated from recent outbreaks of **contagious bovine pleuropneumonia** in Botswana and Tanzania: evidence for a new biotype.
AU March J B; Clark J; Brodlie M
SO JOURNAL OF CLINICAL MICROBIOLOGY, (2000 Apr) 38 (4) 1419-25. Journal code: 7505564. ISSN: 0095-1137.

L14 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2003 ACS
TI Specific PCR identification of the T1 **vaccine** strains for contagious bovine pleuropneumonia
AU Lorenzon, S.; David, A.; Nadew, M.; Wesonga, H.; Thiaucourt, F.
SO Molecular and Cellular Probes (2000), 14(4), 205-210 CODEN: MCPRE6; ISSN: 0890-8508

L14 ANSWER 6 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 5
TI Inhibitory and mycoplasmacidal concentrations of some antibiotics on strains of **Mycoplasma** mycoides subsp. mycoides SC: The causative agent of **contagious bovine pleuropneumonia**.
AU Egwu, G. O.; Aliyu, M. M.
SO Acta Veterinaria (Belgrade), (1998) Vol. 48, No. 5-6, pp. 309-315. ISSN: 0567-8315.

L14 ANSWER 7 OF 34 MEDLINE DUPLICATE 6
TI Contagious bovine pleuropneumonia. The costs of control in Central/southern Africa.
AU Windsor R S; Wood A
SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1998 Jun 29) 849 299-306. Journal code: 7506858. ISSN: 0077-8923.

L14 ANSWER 8 OF 34 MEDLINE DUPLICATE 7
TI Vaccination against contagious bovine pleuropneumonia and the use of molecular tools in epidemiology.

AU Thiaucourt F; Lorenzon S; David A; Tulasne J J; Domenech J
SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1998 Jun 29) 849 146-51.
Ref: 15
Journal code: 7506858. ISSN: 0077-8923.

L14 ANSWER 9 OF 34 MEDLINE DUPLICATE 8
TI ISCOM **vaccine** against contagious bovine pleuropneumonia (CBPP).
1. Biochemical and immunological characterization.
AU Abusugra I; Wolf G; Bolske G; Thiaucourt F; Morein B
SO VETERINARY IMMUNOLOGY AND IMMUNOPATHOLOGY, (1997 Oct 6) 59 (1-2) 31-48.
Journal code: 8002006. ISSN: 0165-2427.

L14 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2003 ACS
TI Polymerase chain reaction (PCR) assay for the detection and differentiation of the virulent strains of **Mycoplasma** mycoides subspecies mycoides "small colony" type from the **vaccine** t1 strain in purified DNA and in field samples from Africa (cytadhesin, P1, **contagious bovine pleuropneumonia**)
AU Kalif, Abdullahi Sheikh Hassan
SO (1996) 97 pp. Avail.: UMI, Order No. DA9720360
From: Diss. Abstr. Int., B 1997, 58(2), 465

L14 ANSWER 11 OF 34 MEDLINE
TI [Strategies for prevention and eradication of contagious bovine pleuropneumonia with or without vaccination].
Strategies de prophylaxie et d'eradication de la peripneumonie contagieuse bovine avec ou sans vaccination.
AU Provost A
SO REVUE SCIENTIFIQUE ET TECHNIQUE, (1996 Dec) 15 (4) 1355-71. Ref: 27
Journal code: 8712301. ISSN: 0253-1933.

L14 ANSWER 12 OF 34 MEDLINE DUPLICATE 9
TI Monoclonal antibodies to surface-exposes proteins of **Mycoplasma** mycoides subsp. mycoides (small-colony strain), which causes **contagious bovine pleuropneumonia**.
AU Kiarie M N; Rurangirwa F R; Perryman L E; Jasmer D P; McGuire T C
SO CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (1996 Nov) 3 (6) 746-52.
Journal code: 9421292. ISSN: 1071-412X.

L14 ANSWER 13 OF 34 MEDLINE DUPLICATE 10
TI Insertion element IS1296 in Mycoplasma mycoides subsp. mycoides small colony identifies a European clonal line distinct from African and Australian strains.
AU Cheng X; Nicolet J; Poumarat F; Regalla J; Thiaucourt F; Frey J
SO MICROBIOLOGY, (1995 Dec) 141 (Pt 12) 3221-8.
Journal code: 9430468. ISSN: 1350-0872.

L14 ANSWER 14 OF 34 MEDLINE
TI Contagious bovine pleuropneumonia **vaccines**: the need for improvements.
AU Rweyemamu M M; Litamoi J; Palya V; Sylla D
SO REVUE SCIENTIFIQUE ET TECHNIQUE, (1995 Sep) 14 (3) 593-601. Ref: 14
Journal code: 8712301. ISSN: 0253-1933.

L14 ANSWER 15 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI THE EFFECT OF RECONSTITUTING DILUENTS ON THE VIABILITY OF T-1 STRAIN MYCOPLASMA **VACCINE**.
AU GARBA S A; NGBEDE J
SO DISCOVERY INNOVATION, (1991) 3 (1), 63-65.
CODEN: DIINE4. ISSN: 1015-079X.

L14 ANSWER 16 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI SEROSURVEY OF SAHELIAN CATTLE FOR EVIDENCE OF EPIZOOTIC DISEASE.
AU MARINER J C; SAMA S; MAMINI C; BAARE K; STEM C; YEDLOUTSCHNIG R J; MEBUS C A; SOLLOD A E
SO PREV VET MED, (1989) 7 (3), 163-172.
CODEN: PVMEEG.

L14 ANSWER 17 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI PROSPECTS OF MYCOPLASMA **VACCINES** WITH SPECIAL EMPHASIS ON OIL-BASED INACTIVATED **VACCINES**.
AU GARBA S A
SO SIXTH INTERNATIONAL CONGRESS OF THE INTERNATIONAL ORGANIZATION FOR MYCOPLASMOLOGY, BIRMINGHAM, ALABAMA, USA, AUGUST 26-31, 1986. ISR J MED SCI. (1987) 23 (5), 535.
CODEN: IJMDAI. ISSN: 0021-2180.

L14 ANSWER 18 OF 34 MEDLINE
TI A reassessment of the dual **vaccine** against rinderpest and contagious bovine pleuropneumonia.
AU Jeggo M H; Wardley R C; Corteyn A H
SO VETERINARY RECORD, (1987 Feb 7) 120 (6) 131-5.
Journal code: 0031164. ISSN: 0042-4900.

L14 ANSWER 19 OF 34 MEDLINE DUPLICATE 11
TI Observations on experimental inactivated **vaccines** for contagious bovine pleuropneumonia.
AU Gray M A; Simam P; Smith G R
SO JOURNAL OF HYGIENE, (1986 Oct) 97 (2) 305-15.
Journal code: 0375374. ISSN: 0022-1724.

L14 ANSWER 20 OF 34 SCISEARCH COPYRIGHT 2003 ISI (R)
TI **MYCOPLASMA VACCINES** - THE POTENCY OF WET T1 BROTH **CONTAGIOUS BOVINE PLEUROPNEUMONIA** (CBPP) **VACCINE** IN CATTLE AFTER STORAGE AT 4-DEGREES-C
AU GARBA S A (Reprint); IMOGIE U A
SO YALE JOURNAL OF BIOLOGY AND MEDICINE, (1984) Vol. 57, No. 6, pp. 904.

L14 ANSWER 21 OF 34 MEDLINE
TI The ability of Mycoplasma mycoides subspecies mycoides and closely related strains from goats and sheep to immunize mice against subspecies capri.
AU Smith G R; Oliphant J C
SO JOURNAL OF HYGIENE, (1981 Oct) 87 (2) 321-9.
Journal code: 0375374. ISSN: 0022-1724.

L14 ANSWER 22 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI IMMUNOGENIC STABILITY OF HEAT KILLED MYCOPLASMA-MYCOIDES-SSP-MYCOIDES AT 4 CELSIUS.
AU HOOKER J M; SMITH G R; MILLIGAN R A
SO BR VET J, (1980) 136 (6), 614-616.
CODEN: BVJOA9. ISSN: 0007-1935.

L14 ANSWER 23 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 12
TI IMMUNE RESPONSE OF MICE RABBITS AND CATTLE TO INACTIVATED MYCOPLASMA-MYCOIDES-SSP-MYCOIDES **VACCINES** CONTAINING ADJUVANTS.
AU HOOKER J M; SMITH G R; MILLIGAN R A
SO J COMP PATHOL, (1980) 90 (3), 363-372.
CODEN: JCVPAR. ISSN: 0021-9975.

L14 ANSWER 24 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI PATHOGENICITY OF A CAPRINE STRAIN OF MYCOPLASMA-MYCOIDES-SSP-MYCOIDES FOR

CATTLE.
AU OJO M O; KASALI O B; OZOYA S E
SO J COMP PATHOL, (1980) 90 (2), 209-216.
CODEN: JCVPAR. ISSN: 0021-9975.

L14 ANSWER 25 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI SOME EVIDENCE OF AN AGE SUSCEPTIBILITY TO CONTAGIOUS BOVINE PLEURO PNEUMONIA.
AU MASIGA W N; WINDSOR R S
SO RES VET SCI, (1978) 24 (3), 328-333.
CODEN: RVTSA9. ISSN: 0034-5288.

L14 ANSWER 26 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI CONTAGIOUS BOVINE PLEURO PNEUMONIA COMPARATIVE EFFICACY TRIAL OF THE FREEZE DRIED FRENCH T-1 **VACCINE** AND THE T-1 BROTH CULTURE **VACCINE** MUGUGA.
AU MASIGA W N; RURANGIRWA F R; ROBERTS D H; KAKOMA I
SO BULL ANIM HEALTH PROD AFR, (1978 (RECD 1979)) 26 (3), 216-223.
CODEN: BAHADH. ISSN: 0378-9721.

L14 ANSWER 27 OF 34 MEDLINE
TI An investigation into the viability of broth cultures of the T1 strain of Mycoplasma mycoides sub-species mycoides.
AU Windsor R S
SO RESEARCH IN VETERINARY SCIENCE, (1978 Jan) 24 (1) 109-12.
Journal code: 0401300. ISSN: 0034-5288.

L14 ANSWER 28 OF 34 MEDLINE DUPLICATE 13
TI Virulence of established **vaccine** strains and artificially passaged field strain of Mycoplasma mycoides subsp mycoides.
AU Dyson D A; Smith G R
SO RESEARCH IN VETERINARY SCIENCE, (1976 Mar) 20 (2) 185-90.
Journal code: 0401300. ISSN: 0034-5288.

L14 ANSWER 29 OF 34 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI The effect of post vaccinal treatment with the antibiotic tylosin on the immunity produced by the T1 strain of Mycoplasma mycoides subspecies Mycoides.
AU Windsor R.S.; Masiga W.N.
SO Journal of Comparative Pathology, (1976) 86/2 (173-181).
CODEN: JCVPAR

L14 ANSWER 30 OF 34 MEDLINE
TI Contagious bovine pleuropneumonia-protection following natural infection and vaccination.
AU Gourlay R N
SO DEVELOPMENTS IN BIOLOGICAL STANDARDIZATION, (1975) 28 586-9.
Journal code: 0427140. ISSN: 0301-5149.

L14 ANSWER 31 OF 34 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI Attempts to differentiate Mycoplasma mycoides var. mycoides immune cattle from susceptible cattle.
AU Roberts D.H.; Windsor R.S.
SO Research in Veterinary Science, (1974) 17/3 (403-405).
CODEN: RVTSA

L14 ANSWER 32 OF 34 MEDLINE DUPLICATE 14
TI Factors affecting the viability of **Mycoplasma** mycoides in bottled **contagious bovine pleuropneumonia vaccine**.
AU Lloyd L C; Pearson C W; Etheridge J R

SO JOURNAL OF APPLIED BACTERIOLOGY, (1974 Sep) 37 (3) 297-307.
Journal code: 7503050. ISSN: 0021-8847.

L14 ANSWER 33 OF 34 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI Immunoelectrophoretic analysis of Mycoplasma mycoides var. mycoides.
AU Stone S.S.; Razin S.
SO Infection and Immunity, (1973) 7/6 (922-930).
CODEN: INFIBR

L14 ANSWER 34 OF 34 MEDLINE
TI The immunizing dose of T1 strain **Mycoplasma** mycoides against **contagious bovine pleuropneumonia**.
AU Gilbert F R; Windsor R S
SO TROPICAL ANIMAL HEALTH AND PRODUCTION, (1971) 3 (2) 71-6.
Journal code: 1277355. ISSN: 0049-4747.

L14 ANSWER 8 OF 34 MEDLINE DUPLICATE 7
AN 1998333056 MEDLINE
DN 98333056 PubMed ID: 9668459
TI Vaccination against contagious bovine pleuropneumonia and the use of molecular tools in epidemiology.
AU Thiaucourt F; Lorenzon S; David A; Tulasne J J; Domenech J
CS CIRAD-EMVT, Montpellier, France.
SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1998 Jun 29) 849 146-51.
Ref: 15
Journal code: 7506858. ISSN: 0077-8923.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199808
ED Entered STN: 19980820
Last Updated on STN: 19980820
Entered Medline: 19980810
AB **Contagious bovine pleuropneumonia** is a serious threat to cattle not only in Africa but also in southern Europe and possibly Asia. It is now present in countries that had been free of the disease for many years, giving rise to doubts about the efficiency of the control strategies. In Africa CBPP is controlled mainly by a vaccination policy that uses variant strains of **Mycoplasma** mycoides subsp mycoides biotype SC, called T1/44 or T1sr. Until recently, it was not possible to differentiate the various strains within the biotype and consequently to identify the **vaccine** strains. Restriction analysis of **mycoplasma** DNA with HindIII and Pst1 has been applied to 24 strains of African origin and one European strain. Each enzyme gave rise to different restriction profiles and the combination of the results permitted subdivision of these strains into 9 groups. Interestingly, some profiles of pathogenic strains seem to be restricted to certain geographical areas. The profile of the poorly immunogenic vaccinal strain KH3J is also very peculiar, and it is easily distinguished from that of the other **vaccine** strains originating from T1. This technique is simple once the strains are isolated. Efforts are now under way to use molecular tools based on PCR products to alleviate the difficulty of isolation.

L14 ANSWER 9 OF 34 MEDLINE DUPLICATE 8
AN 1998100478 MEDLINE
DN 98100478 PubMed ID: 9437824
TI ISCOM **vaccine** against contagious bovine pleuropneumonia (CBPP). 1. Biochemical and immunological characterization.
AU Abusugra I; Wolf G; Bolske G; Thiaucourt F; Morein B
CS Swedish University of Agricultural Sciences, Faculty of Veterinary Medicine, Department of Microbiology, Uppsala, Sweden..
izzeldin.abusugra@bmc.uu.se
SO VETERINARY IMMUNOLOGY AND IMMUNOPATHOLOGY, (1997 Oct 6) 59 (1-2) 31-48.
Journal code: 8002006. ISSN: 0165-2427.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199802
ED Entered STN: 19980224
Last Updated on STN: 19980224
Entered Medline: 19980212

AB A better **vaccine** than the existing ones against **contagious bovine pleuropneumonia** (CBPP) caused by **Mycoplasma** mycoides subsp. mycoides small colony type (MmmSC) would improve the chances for eradication of CBPP. In such an effort, immunostimulating complexes (ISCOMS) have been prepared from the whole detergent-solubilized cells of MmmSC and characterized biochemically and immunologically. The most efficient detergent for solubilization of the **mycoplasma** was MEGA-10 which yielded a high recovery of proteins in the ISCOMS. The ISCOMS showed the typical cage-like structure by EM and sedimented as 19S by sucrose gradient centrifugation. The protein pattern of the ISCOMS, analyzed in SDS-PAGE, revealed a great number of bands distributed along the gel as high and low molecular weight polypeptides. The Western blot developed with a serum from a CBPP infected animal detected a reduced number of polypeptides. In samples from whole **mycoplasma** cells and in ISCOMS, lectin blots revealed more than 20 carbohydrate structures. The ISCOMS induced a strong primary antibody response in mice measured by ELISA and the boost resulted in a 6-fold increase of the serum antibody response. The IgG response was distributed into various IgG subclasses with high IgG1, IgG2a and IgG2b titres while the IgG3 response was low. In cattle the ISCOM **vaccine** induced strong primary and long lasting secondary antibody responses of similar magnitudes as those of naturally infected animals as recorded by ELISA which persisted more than a year. IgG response was equally distributed in IgG1 and IgG2 subclasses. Also a cell-mediated immune response measured by proliferation assay was induced by low dose of ISCOMS. In the growth inhibition test, sera from vaccinated cattle readily inhibited colony growth already after the first immunization.

L14 ANSWER 12 OF 34 MEDLINE DUPLICATE 9
AN 97071924 MEDLINE
DN 97071924 PubMed ID: 8914769
TI Monoclonal antibodies to surface-exposes proteins of **Mycoplasma** mycoides subsp. mycoides (small-colony strain), which causes **contagious bovine pleuropneumonia**.
AU Kiarie M N; Rurangirwa F R; Perryman L E; Jasmer D P; McGuire T C
CS Department of Veterinary Microbiology and Pathology, Washington State University, Pullman 99164-7040, USA.
SO CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (1996 Nov) 3 (6) 746-52. Journal code: 9421292. ISSN: 1071-412X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199702
ED Entered STN: 19970305
Last Updated on STN: 19970305
Entered Medline: 19970218
AB Outbreaks of bovine pleuropneumonia caused by small-colony strains of Mycoplasma mycoides subsp. mycoides occur in Africa, and vaccination is used for control. Since protein subunits are needed to improve multivalent **vaccines**, monoclonal antibodies (MAbs) were made to facilitate protein identification and isolation. Eleven immunoglobulin M MAbs derived from mouse spleen donors immunized with disrupted whole organisms bound periodate-sensitive epitopes on externally exposed polysaccharide. Seven of these MAbs caused in vitro growth inhibition of M. mycoides subsp. mycoides; however, reaction with carbohydrate epitopes prevented their use in identifying proteins. Ten additional MAbs from mouse spleen donors immunized with Triton X-114-phase integral membrane proteins reacted with periodate-insensitive, proteinase K-sensitive epitopes. These MAbs were classified into three groups based on immunoblots of Triton X-114-phase proteins. One group reacted with 96-, 16-, and 15-kDa proteins. Another

group reacted with 26-, 21-, and 16-kDa proteins, while a third group reacted only with 26- and 21-kDa proteins. One MAb from each group reacted with trypsinsensitive epitopes on live organisms, yet none caused in vitro growth inhibition. Representative MAbs reacted with all small-colony strains in immunoblots and did not react with large colony strains. However, these MAbs were not specific for small-colony strains, as proteins from two other M. mycoides cluster organisms were identified. Nevertheless, MAbs to surface-exposed epitopes on integral membrane proteins will be useful for isolation of these proteins for immunization, since one or more might induce growth-inhibiting antibodies or other protective responses.

L14 ANSWER 14 OF 34 MEDLINE
AN 96014310 MEDLINE
DN 96014310 PubMed ID: 8593393
TI Contagious bovine pleuropneumonia **vaccines**: the need for improvements.
AU Rweyemamu M M; Litamoi J; Palya V; Sylla D
CS Food and Agriculture Organisation of the United Nations, Animal Health Service, Rome, Italy.
SO REVUE SCIENTIFIQUE ET TECHNIQUE, (1995 Sep) 14 (3) 593-601. Ref: 14
Journal code: 8712301. ISSN: 0253-1933.
CY France
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199604
ED Entered STN: 19960422
Last Updated on STN: 19960422
Entered Medline: 19960411
AB **Contagious bovine pleuropneumonia** (CBPP) **vaccines** are routinely used only in Africa. The **vaccines** are usually produced from one of two strains (T1/44 and KH3J), each of which has a streptomycin-resistant variant. The necessity for a 'master seed strain' is evident. At least one manufacturer in Africa produces a broth culture **vaccine**, while others produce a freeze-dried product. A standardised manufacturing protocol needs to be developed, together with in-process and final product quality control procedures. Some CBPP **vaccine** manufacturing procedures do not allow sufficient leeway for the execution of typical quality control practices. For example, it is difficult to perform batch testing on broth culture **vaccine**, as the **vaccine** is produced in its final container. Quality control test results from the Pan African Veterinary **Vaccine** Centre (PANVAC) are analysed in terms of causes of batch failure and indicators for process development. Taking potency as an example, most **vaccine** batches tested by PANVAC pass only at the limit of the OIE minimum requirement of 10(7) colony-forming units per dose. To improve the titre of the **vaccine**, it will be necessary to modify the manufacturing process, either by increasing **mycoplasma** yield during the culture phase or by minimising losses during downstream processes, especially freeze-drying. Data on inactivated **vaccines** are scarce. Duration of the immunity achieved with live CBPP **vaccines** is relatively short, in comparison with other live **vaccines**. Data may be required on the molecular basis of virulence and immunogenicity, as well as on the molecular immunology of CBPP, to enable the development of improved **vaccines**.

L14 ANSWER 15 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1992:6347 BIOSIS

DN BA93:6347
TI THE EFFECT OF RECONSTITUTING DILUENTS ON THE VIABILITY OF T-1 STRAIN MYCOPLASMA **VACCINE**.
AU GARBA S A; NGBEDE J
CS DEP. BIOLOGICAL SCIENCES, FEDERAL UNIVERSITY TECHNOLOGY, P.M.B. 65 MINNA, NIGERIA.
SO DISCOVERY INNOVATION, (1991) 3 (1), 63-65.
CODEN: DIINE4. ISSN: 1015-079X.
FS BA; OLD
LA English
AB Six diluents were used to reconstitute 12 batches of freeze-dried T1 strain **contagious bovine pleuropneumonia** **vaccine**. From the findings, normal saline is the most suitable diluent as it stored well at 4.degree. C for 10 hours with a drop of viable **mycoplasma** from 2.7 .times. 108 cfu/ml to 2.2 .times. 108 cfu/ml. The order of performance of these diluents was: normal saline > distilled water > well water > spring water > dam water > tap water. The **vaccine** stored at 42.degree. C deteriorated rapidly within 10 hours of reconstitution with a performance pattern similar to those stored at 4.degree. C.

L14 ANSWER 17 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1988:216430 BIOSIS
DN BR34:109440
TI PROSPECTS OF MYCOPLASMA **VACCINES** WITH SPECIAL EMPHASIS ON OIL-BASED INACTIVATED **VACCINES**.
AU GARBA S A
CS NATL. VET. RES. INST., VOM, NIGERIA.
SO SIXTH INTERNATIONAL CONGRESS OF THE INTERNATIONAL ORGANIZATION FOR MYCOPLASMOLOGY, BIRMINGHAM, ALABAMA, USA, AUGUST 26-31, 1986. ISR J MED SCI. (1987) 23 (5), 535.
CODEN: IJMDAI. ISSN: 0021-2180.
DT Conference
FS BR; OLD
LA English

L14 ANSWER 19 OF 34 MEDLINE DUPLICATE 11
AN 87058903 MEDLINE
DN 87058903 PubMed ID: 3782785
TI Observations on experimental inactivated **vaccines** for contagious bovine pleuropneumonia.
AU Gray M A; Simam P; Smith G R
SO JOURNAL OF HYGIENE, (1986 Oct) 97 (2) 305-15.
Journal code: 0375374. ISSN: 0022-1724.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198612
ED Entered STN: 19900302
Last Updated on STN: 19900302
Entered Medline: 19861224
AB In two trials the efficacy of inactivated **vaccines** against **contagious bovine pleuropneumonia** was tested by exposing vaccinated cattle to droplet infection provided by close contact with experimentally infected 'donors'. Complete protection was given by an extreme form of vaccination in which a heavy suspension of killed **Mycoplasma** mycoides subsp. mycoides emulsified with Freund's complete adjuvant was given in two large doses. 'Mouse-protective antibody' (MPA) was also produced, i.e. serum transferred to mice 2-4 h before intraperitoneal challenge prevented the development of

mycoplasmaemia. However, the study did not answer the question 'Is MPA protective for cattle?'. No protection was given by a milder form of vaccination in which a lighter suspension of killed **mycoplasmas** emulsified with Freund's incomplete adjuvant was given in a comparatively small dose on a single occasion.

L14 ANSWER 21 OF 34 MEDLINE
AN 82031798 MEDLINE
DN 82031798 PubMed ID: 7026674
TI The ability of Mycoplasma mycoides subspecies mycoides and closely related strains from goats and sheep to immunize mice against subspecies capri.
AU Smith G R; Oliphant J C
SO JOURNAL OF HYGIENE, (1981 Oct) 87 (2) 321-9.
Journal code: 0375374. ISSN: 0022-1724.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198112
ED Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19811215
AB Small colony (SC) strains of **Mycoplasma** mycoides subsp. mycoides from **contagious bovine pleuropneumonia** (CBPP) and from goats were compared with large colony (LC) strains of so-called M. mycoides subsp. mycoides from goats and sheep by means of a cross-protection test in which mice were challenged with M. mycoides subsp. capri. Of 13 LC strains, all gave partial cross-protection, and 11 were shown to be more closely related than four SC strains to subspecies capri. In a further experiment, six SC strains--three from CBPP and three from goats--all gave weak partial cross-protection against subspecies capri.

L14 ANSWER 23 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 12
AN 1981:132871 BIOSIS
DN BA71:2863
TI IMMUNE RESPONSE OF MICE RABBITS AND CATTLE TO INACTIVATED MYCOPLASMA-MYCOIDES-SSP-MYCOIDES **VACCINES** CONTAINING ADJUVANTS.
AU HOOKER J M; SMITH G R; MILLIGAN R A
CS NUFFIELD LAB. COMP. MED., INST. ZOOL., ZOOL. SOC. LOND., REGENT'S PARK, LONDON NW1 4RY, ENGL., UK.
SO J COMP PATHOL, (1980) 90 (3), 363-372.
CODEN: JCVPAR. ISSN: 0021-9975.
FS BA; OLD
LA English
AB Mice, rabbits and cattle were inoculated s.c. with various dilutions of a suspension of heat-killed M. mycoides ssp. mycoides emulsified with equal volumes of Freund's incomplete adjuvant (FIA) or an Arachis oil adjuvant (AOA). The **vaccine** dose volumes for mice, rabbits and cattle were 0.2, 0.5 and 5.0 ml, respectively. The immune response of mice was measured by direct challenge; the responses of rabbits and cattle were measured by a passive mouse protection test. The response in rabbits and cattle was much greater than that in mice. The efficacy of FIA was much greater than that of AOA. A **Mycoplasma** suspension with an optical opacity equivalent to that of Brown's tube 2 emulsified with FIA produced a response in all 3 animal species within 6 wk. In rabbits given a 2nd dose of FIA **vaccine** or AOA **vaccine** 6-8 wk after the 1st, mouse-protective antibody (MPA) titers did not increase significantly. Demonstrable levels of MPA persisted in cattle and rabbits for several months after inoculation with FIA **vaccine**, and in

some animals for 10-12 mo. The titers in rabbits were sometimes very high. Further studies on the development of an inactivated **vaccine** for **contagious bovine pleuropneumonia** should be done.

L14 ANSWER 26 OF 34 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1979:238792 BIOSIS
DN BA68:41296
TI CONTAGIOUS BOVINE PLEURO PNEUMONIA COMPARATIVE EFFICACY TRIAL OF THE FREEZE DRIED FRENCH T-1 **VACCINE** AND THE T-1 BROTH CULTURE **VACCINE** MUGUGA.
AU MASIGA W N; RURANGIRWA F R; ROBERTS D H; KAKOMA I
CS VET. RES. ORGAN., P.O. BOX 32, MUGUGA, KIKUYU, KENYA.
SO BULL ANIM HEALTH PROD AFR, (1978 (RECD 1979)) 26 (3), 216-223. CODEN: BAHADH. ISSN: 0378-9721.
FS BA; OLD
LA English
AB Except for 2 animals, all the animals in the group vaccinated with the Tiper T1 freeze-dried **vaccine** and challenged 6 mo. after vaccination had a serological response during the challenge period. Except for 3 animals, all the animals in the group vaccinated with T1 broth culture **vaccine** and challenged 6 mo. later developed CF [complement-fixing] antibodies [Ab]. Four animals vaccinated with the T1 broth culture **vaccine** had CF Ab titers during the trial performed 15 mo. after primary vaccination. Of 15 animals vaccinated with Tiper T1 freeze-dried **vaccine** and challenged 15 mo. after primary vaccination, 12 had CF Ab titers during the trial. Of 25 control animals in the 15-mo. trial, 19 had a serological response. No CBPP [**contagious bovine pleuropneumonia**] lesions were present in the animals vaccinated with Tiper T1 freeze-dried **vaccine** or T1 broth culture **vaccine** and challenged 6 mo. after primary vaccination. Of the control animals in the 6-mo. trial, 12 died of other causes; the remaining 10 animals were killed 6 wk after the onset of the CF Ab. **Mycoplasma** mycoides was recovered from 28 of 35 control animals. Four animals which were vaccinated with T1 broth culture **vaccine** and challenged 15 mo. later had CBPP lesions at post-mortem examination. Of 15 of the animals vaccinated with Tiper T1 freeze-dried **vaccine**, 7 had CBPP lesions at post-mortem examination. Of 25 control animals in the trial performed 15 mo. post-primary vaccination, 11 died of CBPP and 4 animals were killed in extremis.